



Summary of the '378 publication

(21) Application No.: 10-1997-29573
(22) Application Date: June 30, 1997

(11) Publication No.: 1999-5378
(12) Publication Date: January 25, 1999

RECEIVED

NOV 15 2003

Technology Center 2600

(71) Applicant Name: Samsung Electronics co., Ltd.
(54) Title of Invention: METHOD FOR CONTROLLING FORWARD POWER
USING ERASURE INDICATOR BIT

In the prior art, a base station receives a pilot measurement report message from a mobile station, which reports a forward channel status to the base station. Because the pilot measurement report message occupies a reverse data frame, the prior art cannot exceed 4 Hz in updating the forward channel status. Due to this limitation, the prior art is inappropriate for controlling forward power in fast varying channel conditions, like log-normal shadowing.

The '378 publication discloses using a Erasure Indicator bit adopted in Multiplex Option 2 of the CDMA system to report the forward channel status, instead of the pilot measurement report message. Because the Erasure Indicator bit is included in every reverse traffic frame, the forward channel status can be updated at a frequency of 50 Hz. Specifically, if the Erasure Indicator bit is set for "0," the base station reduces the forward power by power down delta, which is constant. If the Erasure Indicator bit is set for "1" and the forward gain value is smaller than the initial, the base station increases the forward power by big up delta. If the forward gain value is bigger than the initial, the forward power is increased by small up delta. The up deltas are also constant.

The invention in the '378 publication is effective in controlling the forward power in case of fast varying channel conditions since the updating cycle is about 50 times as fast as the prior art.